



# Monitoring the emergence of antibiotic resistance using the technology of the DebugIT platform in the HEGP context

Rémy Choquet, Christel Daniel, Patrick Grohs, Nassim Douali,  
Marie-Christine Jaulent

## ► To cite this version:

Rémy Choquet, Christel Daniel, Patrick Grohs, Nassim Douali, Marie-Christine Jaulent. Monitoring the emergence of antibiotic resistance using the technology of the DebugIT platform in the HEGP context. BMC Proceedings, 2011, 5 (Suppl 6), pp.P320. 10.1186/1753-6561-5-S6-P320 . inserm-00604641

**HAL Id: inserm-00604641**

**<https://www.hal.inserm.fr/inserm-00604641>**

Submitted on 29 Jun 2011

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

POSTER PRESENTATION

Open Access

# Monitoring the emergence of antibiotic resistance using the technology of the DebugIT platform in the HEGP context

R Choquet<sup>1\*</sup>, C Daniel<sup>1</sup>, P Grohs<sup>2</sup>, N Douali<sup>1</sup>, M-C Jaulent<sup>1</sup>

From International Conference on Prevention & Infection Control (ICPIC 2011)  
Geneva, Switzerland. 29 June – 2 July 2011

## Introduction / objectives

This work takes part in the European DebugIT project which goal is to build a technical and semantic information technology platform able to share heterogeneous clinical data sets from different hospitals for the monitoring and the control of infectious diseases and antimicrobial resistances in Europe. The aim of the study is to compare the incidence rates of antimicrobial resistance at the HEGP hospital obtained in real-time by the DebugIT platform to those established by the yearly-performed analysis processed by the microbiologists of the HEGP hospital.

## Methods

The INSERM database covers seven years of anonymized microbiology data and represents an image of the HEGP EHR data. To be able to semantically integrate the data with other European peers, we went through several steps of data normalisation and quality works. These tasks led to the setup of semantic data providers (hospitals) that were integrated at a European level. We built a common view of our domain knowledge upon which we aligned our semantic data providers. We compared the incidence rates of antimicrobial resistance produced by the DebugIT platform at the HEGP hospital to a gold standard produced yearly by the experts.

## Results

Despite different data processing methods (e.g only microbiologists de-duplicate data in case of repetitive antibiograms on different isolates), the results were

highly similar (maximum 2% variability of the antimicrobial resistance incidence rates).

## Conclusion

This study shows the adequacy of the control capabilities of the DebugIT platform and the maturity of the semantic integration methods developed by the project consortium for the setup of a pan-European surveillance network.

## Disclosure of interest

None declared.

## Author details

<sup>1</sup>UMR\_S 872, EQ20, INSERM, France. <sup>2</sup>Service de microbiologie, HEGP -APHP, PARIS, France.

Published: 29 June 2011

doi:10.1186/1753-6561-5-S6-P320

**Cite this article as:** Choquet et al.: Monitoring the emergence of antibiotic resistance using the technology of the DebugIT platform in the HEGP context. *BMC Proceedings* 2011 **5**(Suppl 6):P320.

<sup>1</sup>UMR\_S 872, EQ20, INSERM, France

Full list of author information is available at the end of the article